



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF WASTE AND HAZARDOUS SUBSTANCES
391 LUKENS DRIVE
NEW CASTLE, DELAWARE 19720-2774

SITE INVESTIGATION &
RESTORATION SECTION

TELEPHONE: (302) 395 - 2600
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April 2, 2012

Ex. 4 CBI

Ten Bears Environmental, L.L.C
1080 S. Chapel Street
P.O. Box 9711
Newark, DE 19714

**RE: Comments to Revised Work Plan/Sampling & Analysis Plan
Procino Plating Facility (DE-0344)**

Dear Ms **Ex. 4 CBI**

The Department of Natural Resources and Environmental Control – Site Investigation and Restoration Section (DNREC-SIRS) has received and reviewed the draft Revised Work Plan/Sampling & Analysis Plan submitted for the referenced site via email on March 21, 2012. As indicated in the email, this work plan is a follow up to our meeting on March 1, 2012 where we discussed the initial proposed workplan dated January 16, 2012.

DNREC-SIRS is providing the following comments and questions to the Revised Work Plan/Sampling & Analysis Plan text:

- Page 2 - Onsite Groundwater Section – as indicated in our March 1, 2012 meeting, the detected Dieldrin above screening levels in groundwater at the site will need to be addressed at some point during the Remedial Investigation. The assertion that the compound was detected in two upgradient wells does not necessarily indicate an offsite source, especially since the groundwater flow direction determined by DNREC is being scrutinized. Confirmation of the groundwater flow direction is necessary before this hypothesis can be tested.
- Page 2 – Item # 3 – Please confirm the assumption that the “low-flow” sampling technique proposed will be accomplished through the use of a peristaltic pump. In addition, and to confirm a likely assumption by Ten Bears, DNREC set its sample tubing to within one foot of the bottom of the screen when sampling all site monitoring wells during the Site Inspection (SI).
- Page 2 – Item # 4 – Please provide more detailed information regarding how the former water supply well will be sampled. Is it known whether the well is a 2-inch diameter or

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4-inch diameter? Can it be confirmed that there is 10 feet of screen in the well? DNREC assumes that the well will have a pump installed which may interfere with the sampling. Will the old pump be removed prior to sampling? Since the well is not a 1-inch diameter monitoring well, will a peristaltic or Grundfos™ type submersible pump be used for the sampling? If this well is old, there may be a significant amount of stagnant water in the well casing. Removal of a pump will likely mix the stagnant water above the screen with the groundwater in the screened portion of the well. For this reason, will Ten Bears still utilize a low flow sampling technique, or evacuate well volumes to remove the stagnant water?

- Page 2, Item # 4 – Because the former water supply well is deeper than the DNREC SI wells, it is requested that the groundwater samples be analyzed for TAL metals and cyanide with either method 9012A or 335.4 (distillation methods).
- Page 2-3, Item # 5 – Please indicate in the work plan how the monitoring wells will be installed and constructed. Will soil coring or split spoons be used to determine where the first clay layer is encountered? Please note from the DNREC SI that soil coring was conducted at all site monitoring well locations to a depth of 20 feet below ground surface. In the closest well locations to the three proposed wells, a significant clay layer was not identified above the 20 foot depth.
- Page 3, Item # 5 – Because the three wells will be screened deeper than the DNREC-SI wells, it is requested that the groundwater samples be analyzed for TAL metals and cyanide with either method 9012A or 335.4 (distillation methods).

Additional Request – Recent review of DNRECs Solid and Hazardous Waste Management Branch records indicates that there used to be a large inventory of chemicals and plating solutions stored throughout the inside of the buildings that contained chromium and cyanide based solutions, among other metals based solutions. Since floor drains are the most logical pathway for these compounds to enter the subsurface if any leaking or spilling occurred from this inventory in the past, and in an attempt to rule out other potential contaminants, source areas, and pathways, DNREC-SIRS requests that water samples be collected from each of the floor drains identified inside the site buildings. DNREC-SIRS requests that the samples be analyzed for TAL metals and cyanide with either method 9012A or 335.4.

General Comment – The January 2012 work plan contained details regarding chromium speciation. During our March 1, 2012 meeting, chromium speciation was discussed, but not ruled out. Speciation is not included in the revised work plan. Please provide rationale for omitting this item.

General Comment – Aside from verifying groundwater flow direction first, is there any planned sequencing of the proposed data collection, as discussed during the March 1, 2012 meeting? If so, please indicate this in more detail in the work plan.

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DNREC-SIRS is providing the following comments and questions to the Revised Work Plan/Sampling & Analysis Plan Table:

- Section 1 - Soil Sampling – It is not indicated whether the DNREC-SIRS screening lab will be used to screen the soil samples. In addition, please indicate the sample analytical methods that will be used.
- Section 2 - Groundwater Monitoring Wells - Please indicate the analytical methods that will be used for the chromium and cyanide samples.
- Section 4 – Health and Safety Plan – Ten Bears must generate a Health and Safety Plan (HASP) that is specific to their employees. It is acceptable to use DNREC-SIRS's HASP as a template for general information, but it cannot be adopted for use as-is.

As indicated in your work plan, DNREC-SIRS also looks forward to moving this project along. If the comments provided in this letter are addressed in the final draft of the Revised Work Plan/Sampling & Analysis Plan, there will be no reason to hold up the approval of the plan and subsequent scheduling of field work at the Site.

In addition, please submit a HASP prepared specifically for Ten Bears personnel with the final draft of the work plan. Also, DNREC-SIRS requests a schedule, once developed, of sampling activities, as splits of the groundwater samples from newly installed monitoring wells and floor drain samples may be collected for independent analysis.

If you have any questions, please contact me via email at john.cargill@state.de.us or by phone at 302.395.2622.

Sincerely,



John G. Cargill, IV, P.G.
DNREC-SIRS Project Officer

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